

Satisfaction of Saudi Board Plastic Surgery Residents with the Training Program: A National Survey

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Background: It is well established in the literature that the satisfaction of trainees correlates with higher productivity and efficiency during training years. The satisfaction rate of Saudi Board of Plastic Surgery trainees has not been investigated since its establishment in 2001. Therefore, we aimed to measure the satisfaction rate of local trainees and detail the predictors of satisfaction.

Methods: This study was conducted on September 9–13, 2021. The study is a cross-sectional, nation-wide study utilizing a self-structured questionnaire targeting all plastic surgery residents in Saudi Arabia. IRB approval and approval from the governing body of residency programs in Saudi Arabia were obtained.

Results: The study included 100% of western region residents (N = 9) and 72.7% of central region residents (N = 24), yielding a total of 33 participants with 78.6% response rate. Of all the residents, only 39.4% were satisfied with their training in the Saudi Board of Plastic Surgery program, 45.5% were neutral regarding their opinion, and 15.2% expressed their dissatisfaction with the program. The area most in need of improvement was mentorship (30.3%), followed by the quality of teaching (12.1%) and workplace climate (12.1%), whereas the least was administrative components (6.1%).

Conclusions: The mild level of dissatisfaction toward the local training in plastic surgery should alarm the governing body in the Saudi Commission for Health Specialties and the program directors to take certain interventions toward the improvement of local training. Considering the areas most in need of improvement is necessary to achieve a suitable training environment for the residents. (*Plast Reconstr Surg Glob Open* 2022;10:e4071; doi: [10.1097/GOX.0000000000004071](https://doi.org/10.1097/GOX.0000000000004071); Published online 21 February 2022.)

INTRODUCTION

The Saudi Board of Plastic Surgery was established in 2001.¹ It initially started in the central region of the country, and it went on expanding until it included the western region in 2009.¹ The program consists of 6 years of residency training.¹ Furthermore, the Saudi Board of Plastic Surgery accepts only 10–13 students among 60–70

competitive applicants annually; in addition, the program graduates two to four plastic surgeons yearly.² In addition, the governing body of the Saudi Board is continuously expanding and improving the program to increase the program's training capacity and to eventually contribute to the uprising of more local board-certified plastic surgeons.² Moreover, the structure of the Saudi plastic surgery training curriculum has been well-documented in a previously published official hand-out.¹

The number of accredited training centers has increased dramatically from a total of only five accredited training centers in 2001, to a total of 16 in 2021.¹ The Saudi Board of Plastic Surgery follows the Canadian Medical Education Directives for Specialists framework and is under the direct supervision of the Saudi Commission for Health Specialties (SCFHS).¹

The trainees' satisfaction is of paramount importance, as it has been established in the literature that high training satisfaction is linked with greater productivity and efficiency in residency.³ Locally, Aldossary et al reported that 44.6% of general surgery trainees were not satisfied with their training.⁴ Furthermore, they reported that the

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trainees were least satisfied with research opportunities, faculty didactic involvement, mentorship, and case volume offered. On the contrary, Altokhais et al reported that the pediatric surgery trainees were highly satisfied with the Saudi Board training.⁵

Internationally, Copeland et al reported that Canadian plastic surgery residents express a high training satisfaction, and they found that the area in which residents are least satisfied with is “training feedback.”³ As for the satisfaction of Saudi Board of Plastic Surgery trainees, the data are lacking. Therefore, we aim to measure the overall satisfaction rate of Saudi Board plastic surgery trainees, as well as detail the predictors of their satisfaction.

METHODOLOGY

In this cross-sectional study, the authors structured a self-administered questionnaire in the light of available literature with similar objectives.^{3–6,7} The questionnaire was revised by two experts in the field of plastic surgery to ensure the objectivity of the questions.

Apart from the demographic questions, the questionnaire was based on 22 elements about plastic surgery residents’ satisfaction with the Saudi training program. The questionnaire was composed of three sections covering the following aspects of the residency training program: general program characteristics, theoretical and surgical education, and future vision, recommendations, and satisfaction rate.

All the residents have been notified that no identifiers will be required. Data were kept safe with authorized access only. The survey was distributed to all plastic surgery residents in Saudi Arabia after obtaining the approval from the SCHS, as well as obtaining the institutional review board approval from King Saud University. During the period of September 9 to September 13 of 2021, every plastic surgery resident (PGY-1 to PGY-6) has been contacted individually via WhatsApp to fill out the survey.

The single inclusion criterion was being a plastic surgery resident in the Saudi Board program and having completed at least 3 months of training in the plastic surgery department during the questionnaire period. Rotators from other specialties and plastic surgery residents who did not prefer to fill out the survey were excluded.

Statistical Analysis

The data were analyzed using Statistical Packages for Social Sciences version 26 Armonk, NY: IBM Corp. The level of residents’ satisfaction regarding the Saudi Board of Plastic Surgery program has been assessed using the following question: “How would you rate your overall satisfaction regarding your Saudi Board of Plastic Surgery residency program?” A five-point Likert scale was used to interpret the results; the options ranged from “not satisfied at all” (1) to “very satisfied” (5).

The five-point Likert scale was divided into three categories in our analysis, in which 1 and 2 were considered dissatisfied, 3 was considered neutral, and 4 and 5 were considered satisfied. Both descriptive and inferential statistics were conducted. In descriptive statistics, all categorical variables were presented using numbers and

Takeaways

Question: What is the satisfaction rate of plastic surgery trainees in respect to their training in Saudi Arabia?

Findings: This cross-sectional, nation-wide study among 78.6% of plastic surgery residents in Saudi Arabia has shown a mild rate of dissatisfaction toward the local training. The area in most need of improvement in the training is mentorship.

Meaning: The satisfaction rate of trainees correlates with their productivity and their efficiency in training. Plastic surgery residents expressed a mild rate of dissatisfaction toward the local training. We encourage the supervisory body of residency programs in Saudi Arabia to implement practical solutions to improve the quality of local training, hence, elevating the satisfaction of its trainees.

percentages, whereas all continuous variables were summarized using mean and SD.

The level of satisfaction regarding the Saudi Board of Plastic Surgery residency program was compared with the different characteristics of residents by using Fischer exact test and Mann-Whitney U test. Normality tests were performed using Shapiro Wilk test, thus revealing that the data follows an abnormal distribution. Consequently, nonparametric tests were applied. A *P* value cut-off point of 0.05 at 95% confidence interval was used to determine statistical significance.

RESULTS

All Western region plastic surgery residents have participated in filling out the survey (*N* = 9), whereas only 72% of residents in the Central region participated (*N* = 24), resulting in a total sample size of 33 plastic surgery residents with an overall response rate of 78.6%.

The most common age group was 25–27 years (51.5%), with approximately 60.6% (*N* = 20) being men. Regarding residency training level, 39.4% (*N* = 13) were in PGY-1 and PGY-2, 39.4% (*N* = 13) were in PGY-3 and PGY-4, and 21.2% (*N* = 7) were in PGY-5 and PGY-6. As for their marital status, the majority (60.6%, *N* = 20) were single. When asked how long it takes to commute from home to work, 60.6% (*N* = 20) indicated that it took them more than 30 minutes, whereas the rest answered that commute took 30 minutes or less (39.4%, *N* = 13).

When compared with the level of satisfaction, age group (*P* = 1.00), gender (*P* = 0.209), residency training level (*P* = 0.755), marital status (*P* = 0.440), and duration of commute to work (*P* = 0.395) did not show a significant relationship with the level of satisfaction. Further details about residents’ sociodemographic characteristics that correspond to their overall satisfaction are presented in [Table 1](#).

Nearly three-quarters of participants (72.7%, *N* = 24) were currently undergoing their residency training in the central region of Saudi Arabia. The proportion of residents who indicated that they are part of a joint program

Table 1. Residents' Sociodemographic Characteristics in Accordance with the Overall Satisfaction regarding Saudi Board Plastic Surgery Residency Program

Factor	Overall N (%) (n = 33)	Level of Training Satisfaction			P*
		Satisfied N (%) (n = 13)	Neutral N (%) (n = 15)	Dissatisfied N (%) (n = 5)	
Age group					
• 25–27 y	17 (51.5%)	6 (46.2%)	8 (53.3%)	3 (60.0%)	1.000
• >27 y	16 (48.5%)	7 (53.8%)	7 (46.7%)	2 (40.0%)	
Gender					
• Men	20 (60.6%)	7 (53.8%)	8 (53.3%)	5 (100%)	0.209
• Women	13 (39.4%)	6 (46.2%)	7 (46.7%)	0	
Residency training level					
• Core general surgery†	13 (39.4%)	4 (30.8%)	6 (40.0%)	3 (60.0%)	0.755
• Junior plastic surgery‡	13 (39.4%)	6 (46.2%)	5 (33.3%)	2 (40.0%)	
• Senior plastic surgery§	7 (21.2%)	3 (23.1%)	4 (26.7%)	0	
Marital status					
• Single	20 (60.6%)	6 (46.2%)	10 (66.7%)	4 (80.0%)	0.440
• Married	13 (39.4%)	7 (53.8%)	5 (33.3%)	1 (20.0%)	
How long does it take you to commute to work?					
• ≤30 min	13 (39.4%)	7 (53.8%)	4 (26.7%)	2 (40.0%)	0.395
• >30 min	20 (60.6%)	6 (46.2%)	11 (73.3%)	3 (60.0%)	

*Pvalue has been calculated using Fischer exact test.

†Core general surgery residents are PGY-1 & PGY-2.

‡Junior plastic surgery residents are PGY-3 & PGY-4.

§Senior plastic surgery residents are PGY-5 & PGY-6.

was 72.7%. Additionally, 75.8% of residents reported that their program had more than six residents.

Furthermore, about 40% of the residents are working more than 120 hours per week in their current curriculum, and 63.6% reported that they work an average of eight or fewer overnight call shifts per month. In total, 39.4% of residents complain of inadequate balance between work and personal life, and 48.5% agreed that they have workload-related stress. Surprisingly, only 36.4% would choose the same plastic surgery residency program, if given the chance.

When comparing the level of satisfaction, those who strongly agreed that they have workload-related stress ($P = 0.002$) were significantly more dissatisfied with the Saudi Board of Plastic Surgery residency training. Further information about general program characteristics is presented in Table 2.

The study also revealed that only 45.5% of the residents find an available mentor to help them understand difficult concepts. We then observed that 42.4% often received surgical instruction in the operation room from the attending physicians. When asked about the benefits of intraoperative teaching on a scale from 1 to 5, the average score showed 3.76 (SD 1.06), indicating above-average benefits. When asked if a mentor is available to assist with surgical skills, only 36.4% of them reported that a mentor is often available.

Similarly, the plastic surgery residents' satisfaction regarding the educational curriculum was measured using a five-point Likert scale. The mean score was 3.12 (SD 1.05), indicating a neutral opinion regarding the satisfaction of the educational curriculum. Moreover, 36.4% of the residents indicated that they have scrubbed in to surgeries about 21–25 times per month. Only 6.1% of residents expressed that they never felt that there was any lack of supervision during procedures; on the other hand, 27.3% rarely felt that they were ever overly supervised during procedures.

Residents who felt that a mentor is available to help them with practical skills were significantly more satisfied ($P = 0.042$), whereas residents who rarely felt that they are inadequately supervised during procedures were significantly more dissatisfied ($P = 0.046$). In addition, increasing benefits from intraoperative teaching and increasing satisfaction in the educational curriculum of plastic surgery programs were associated with increased satisfaction with the overall Saudi Board of Plastic Surgery residency program ($P = 0.006$, $P = 0.006$ respectively). Further details about theoretical and surgical education in relation to overall satisfaction are presented in Table 3.

Moreover, it was revealed that only 27.3% of the residents were satisfied with the current case volume. In addition, nearly 70% of the residents reported that more than 25 cases per month will make them highly satisfied; however, 54.5% expressed that the number of residents should be raised to ease the workload daily. Further details about residents' general perception of the program in relation to their overall satisfaction are presented in Table 4.

Regarding overall satisfaction, 39.4% of the residents were satisfied with their training in the Saudi Board of Plastic Surgery program, 45.5% were neutral, and 15.2% expressed their dissatisfaction with the program. Moreover, the most frequent suggestion that was chosen to improve the residency program was mentorship (30.3%), followed by quality of teaching (12.1%) and workplace climate (12.1%), whereas administrative components was the least chosen option (6.1%). Further information is depicted in Figures 1 and 2.

DISCUSSION

Our study is a nationwide study that investigates the satisfaction level of Saudi Board of Plastic Surgery residents along with the predictors of their satisfaction. The study is the first to assess the satisfaction level of Saudi Board of Plastic Surgery residents since its establishment

Table 2. General Program Characteristics in accordance with the Overall Satisfaction regarding Saudi Board Plastic Surgery Residency Program

Variables	Level of Training Satisfaction				P*
	Overall N (%) (n = 33)	Satisfied N (%) (n = 13)	Neutral N (%) (n = 15)	Dissatisfied N (%) (n = 5)	
Residency program region in Saudi Arabia					
• Western region	9 (27.3%)	4 (30.8%)	4 (26.7%)	1 (20.0%)	1.000
• Central region	24 (72.7%)	9 (69.2%)	11 (73.3%)	4 (80.0%)	
Is your program a joint program?					
• Yes	24 (72.7%)	11 (84.6%)	10 (66.7%)	3 (60.0%)	0.501
• No	9 (27.3%)	2 (15.4%)	5 (33.3%)	2 (40.0%)	
How many residents are currently in your program?					
• ≤6	8 (24.2%)	2 (15.4%)	3 (20.0%)	3 (60.0%)	0.154
• >6	25 (75.8%)	11 (84.6%)	12 (80.0%)	2 (40.0%)	
On average, how many hours per week do you work in your current PGY?					
• <60 h	3 (9.1%)	1 (7.7%)	1 (6.7%)	1 (20.0%)	0.917
• 60–90 h	6 (18.2%)	3 (23.1%)	2 (13.3%)	1 (20.0%)	
• 91–120 h	11 (33.3%)	5 (38.5%)	5 (33.3%)	1 (20.0%)	
• >120 h	13 (39.4%)	4 (30.8%)	7 (46.7%)	2 (40.0%)	
On average, how many overnight call shifts do you work per month in your current PGY?					
• ≤8	21 (63.6%)	11 (84.6%)	8 (53.3%)	2 (40.0%)	0.129
• >8	12 (36.4%)	2 (15.4%)	7 (46.7%)	3 (60.0%)	
I can have an adequate balance between work and personal life					
• Strongly disagree	6 (18.2%)	0	4 (26.7%)	2 (40.0%)	0.065
• Disagree	13 (39.4%)	5 (38.5%)	7 (46.7%)	1 (20.0%)	
• Neutral	5 (15.2%)	1 (7.7%)	2 (13.3%)	2 (40.0%)	
• Agree	7 (21.2%)	5 (38.5%)	2 (13.3%)	0	
• Strongly agree	2 (6.1%)	2 (15.4%)	0	0	
I often have a workload that results in significant stress					
• Strongly disagree	1 (3.0%)	0	1 (6.7%)	0	0.002†
• Disagree	2 (6.1%)	1 (7.7%)	0	1 (20.0%)	
• Neutral	4 (12.1%)	3 (23.1%)	1 (6.7%)	0	
• Agree	16 (48.5%)	9 (69.2%)	7 (46.7%)	0	
• Strongly agree	10 (30.3%)	0	6 (40.0%)	4 (80.0%)	
I would choose the same plastic surgery residency program again if I had the chance					
• Strongly disagree	4 (12.1%)	0	2 (13.3%)	2 (40.0%)	0.139
• Disagree	3 (9.1%)	0	2 (13.3%)	1 (20.0%)	
• Neutral	6 (18.2%)	2 (15.4%)	3 (20.0%)	1 (20.0%)	
• Agree	12 (36.4%)	6 (46.2%)	6 (40.0%)	0	
• Strongly agree	8 (24.2%)	5 (38.5%)	2 (13.3%)	1 (20.0%)	

*Pvalue has been calculated using Fischer exact test.

†Significant at P < 0.05 level.

Values in boldface are statistically significant.

in 2001.¹ Our study aims to provide plastic surgery program directors and the SCFHS local data to consider possible interventions that will help improve the quality of local plastic surgery training programs, thus increasing the satisfaction of its trainees. Our study shows a mild level of dissatisfaction among residents, with more than 15% of the residents completely dissatisfied with their plastic surgery training in the Saudi Board program, and more than 45% of the residents expressing a neutral opinion. The residents have suggested that the area most in need of improvement is mentorship.

The results of dissatisfaction found among residents in our study are in line with the Saudi Board general surgery program residents, as Aldossary et al have reported in a previous study.⁴ Their study showed that 44.6% of the studied residents were dissatisfied with their training in the Saudi Board general surgery program.⁴ Furthermore, Al Shanafey et al reported that 78% of the Saudi Board surgical residents were dissatisfied with their training as well.⁸ Interestingly, Altokhais et al conducted a study among Saudi Board pediatric surgery residents and found

that pediatric surgery residents were satisfied in all rotations except the plastic surgery rotation.⁵

The previously mentioned level of dissatisfaction raises a major concern regarding the quality of the local plastic surgery training. Nevertheless, it provides an extraordinary opportunity to program directors and the SCFHS to take practical solutions and actions to improve the current situation of the plastic surgery training program in Saudi Arabia.

Our study reveals that the residents who had a mentor that was readily available to help them with practical skills were more satisfied with their training, as well as those who seldomly felt that they were inadequately supervised during procedures. Al Shanafey et al has found that only 49% of the Saudi board surgical trainees have a constant mentor, and only 40% of the consultants were committed to teaching their trainees.⁶ Further, Lam et al found that the most important contributor to training satisfaction was the faculty's commitment to resident education.⁸ The limited number of available committed mentors could explain the mild degree of dissatisfaction among the residents.

Table 3. Theoretical and Surgical Education in relation to the Overall Satisfaction regarding Saudi Board Plastic Surgery Residency Program

Variables	Level of Training Satisfaction				P§
	Overall N (%) (n = 33)	Satisfied N (%) (n = 13)	Neutral N (%) (n = 15)	Dissatisfied N (%) (n = 5)	
Do you usually find an available mentor to assist you in understanding difficult concepts?					
• Yes	10 (30.3%)	6 (46.2%)	4 (26.7%)	0	0.261
• No	8 (24.2%)	2 (15.4%)	3 (20.0%)	3 (60.0%)	
• Sometimes	15 (45.5%)	5 (38.5%)	8 (53.3%)	2 (40.0%)	
How often do you get surgical instructions in the OR from attending physicians?					
• Rarely	6 (18.2%)	0	3 (20.0%)	3 (60.0%)	0.096
• Sometimes	10 (30.3%)	4 (30.8%)	6 (40.0%)	0	
• Often	14 (42.4%)	7 (53.8%)	5 (33.3%)	2 (40.0%)	
• Always	3 (9.1%)	2 (15.4%)	1 (6.7%)	0	
Do you benefit from intraoperative teaching? (mean ± SD)*	3.76 ± 1.06	4.08 ± 0.64	4.00 ± 1.00	2.20 ± 0.84	0.006 ‡
Is there an available mentor to help you practice surgical skills that you struggle in?					
• Yes	5 (15.2%)	2 (15.4%)	3 (20.0%)	0	0.042 ‡
• Often	12 (36.4%)	8 (61.5%)	4 (26.7%)	0	
• Seldom	10 (30.3%)	3 (23.1%)	5 (33.3%)	2 (40.0%)	
• No	6 (18.2%)	0	3 (20.0%)	3 (60.0%)	
Do you find the educational curriculum in your plastic surgery program satisfactory? (mean ± SD)†	3.12 ± 1.05	3.69 ± 0.85	3.00 ± 1.00	2.00 ± 0.71	0.006 ‡
Approximately, how many procedures do you scrub into (in total) per month?					
• <15	8 (24.2%)	2 (15.4%)	3 (20.0%)	3 (60.0%)	0.086
• 15–20	8 (24.2%)	1 (7.7%)	5 (33.3%)	2 (40.0%)	
• 21–25	12 (36.4%)	8 (61.5%)	4 (26.7%)	0	
• >25	5 (15.2%)	2 (15.4%)	3 (20.0%)	0	
How often do you feel like you are inadequately supervised during a procedure?					
• Never	2 (6.1%)	2 (15.4%)	0	0	0.046 ‡
• Rarely	10 (30.3%)	7 (53.8%)	3 (20.0%)	0	
• Sometimes	8 (24.2%)	3 (23.1%)	4 (26.7%)	1 (20.0%)	
• Often	10 (30.3%)	1 (7.7%)	6 (40.0%)	3 (60.0%)	
• Always	3 (9.1%)	0	2 (13.3%)	1 (20.0%)	
How often do you feel like you are overly supervised during a procedure?					
• Rarely	9 (27.3%)	2 (15.4%)	5 (33.3%)	2 (40.0%)	0.579
• Sometimes	12 (36.4%)	4 (30.8%)	6 (40.0%)	2 (40.0%)	
• Often	12 (36.4%)	7 (53.8%)	4 (26.7%)	1 (20.0%)	

*Response has a range from 1 = not beneficial to 5 = extremely beneficial.

†Response has a range from 1 = not at all to 5 = yes, very much.

§P value has been calculated using Fischer exact test.

‡Significant at $P < 0.05$ level.

Values in boldface are statistically significant. P value has been calculated using Mann Whitney U test.

Table 4. Residents' Perception in relation to the Overall Satisfaction regarding Saudi Board Plastic Surgery Residency Program

Variables	Level of Training Satisfaction				P*
	Overall N (%) (n = 33)	Satisfied N (%) (n = 13)	Neutral N (%) (n = 15)	Dissatisfied N (%) (n = 5)	
Are you satisfied with your current case volume?					
• Yes	9 (27.3%)	5 (38.5%)	4 (26.7%)	0	0.334
• No, I'd like to be involved in more cases	24 (72.7%)	8 (61.5%)	11 (73.3%)	5 (100%)	
Attending how many surgeries per month will make you highly satisfied?					
• 15–20	2 (6.1%)	0	1 (6.7%)	1 (20.0%)	0.265
• 21–25	8 (24.2%)	5 (38.5%)	3 (20.0%)	0	
• >25	23 (69.7%)	8 (61.5%)	11 (73.3%)	4 (80.0%)	
Is the number of residents in your department optimal?					
• No, it should be lowered so each could operate more	6 (18.2%)	2 (15.4%)	2 (13.3%)	2 (40.0%)	0.234
• No, it should be raised to ease the daily load	18 (54.5%)	5 (38.5%)	10 (66.7%)	3 (60.0%)	
• Yes, it is optimal	9 (27.3%)	6 (46.2%)	3 (20.0%)	0	

Response has a range from 1 = not satisfied at all to 5 = very satisfied.

Significant at $P < 0.05$ level.

*P value has been calculated using Fischer exact test.

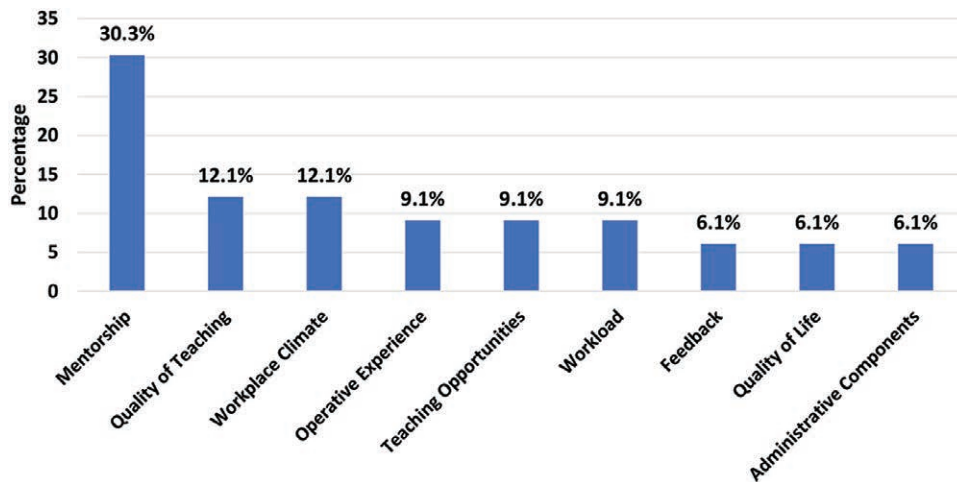


Fig. 1. Recommendations to improve the residency program.

Our study shows that the residents who felt that they did not have an adequate balance between work and personal life, and the residents who strongly agreed that they have significant workload stress were more dissatisfied with their training. The previously mentioned finding is in concordance with the study conducted by Alosaimi et al, which found that stress was linked with a higher workload, sleep deprivation, and dissatisfaction with the fellow residents and the training program.⁹ This is an indication for the SCFHS and the program directors to take the appropriate measures to ensure the improvement of their residents’ well-being and mental health.

Moreover, our study shows that the areas that are in most need of improvement are mentorship, quality of teaching, and workplace environment. In a study done by Kaufman et al, they reported that plastic surgery residents mainly sought improvements in surgical instructions in the operating room and mentorship.⁷ Further, Copeland et al reported that operative experience is the area most in need of improvement in their plastic surgery residency program.³ Improving the previously mentioned areas may elevate the residents’ satisfaction in our local residency program.

The authors propose a few solutions to the mild dissatisfaction observed among plastic surgery residents in Saudi Arabia towards the local training program. First,

mentorship is essential in professional development in residency programs.¹⁰ Concentrating on proper structural mentoring is highly recommended, as it has been proven to provide high satisfaction as well as an increase in the academic productivity of the residents.¹⁰ According to Barker et al, mentees value frequent, one-on-one interactions over group activities.¹¹ On the other hand, Janis and Barker have reported that mentors prefer group activities over a one-to-one interaction.¹² Emphasizing the importance of a one-to-one interaction with the residents is highly recommended by the authors. Odom et al have investigated the mentors’ traits most valued by residents, and have found that the mentors’ operative skills, approachability of the mentor, and teaching style were, respectively, most preferred by residents.¹³ Second, wellness activities are of a paramount importance to be taken into consideration to increase the residents’ training satisfaction. It has been well-established that wellness activities reduce depression and anxiety, increase productivity, and reduce burn-out risks.¹⁴ Furthermore, as Alosaimi et al found that reduced well-being is correlated with high dissatisfaction, it is highly recommended by the authors to pay close attention to the well-being of the residents to prevent such dissatisfaction.⁸

Limitations of our study include the study’s descriptive cross-sectional nature and the probability of bias. Second, although our study included 100% of the western region residents, we only managed to include 72.7% of the central region residents, and further research that includes all Saudi Board plastic surgery residents is recommended. Third, the responses were constricted to close-ended answers that may mask the complexity of the issues investigated. Fourth, given the small number of residency programs in Saudi Arabia and the small number of residents, this may cause a possible hesitancy to respond to our survey with complete honesty due to fear of personal identifiers being revealed, which may explain the high rate of neutral responses. Despite these limitations, we believe that useful information can be obtained from our data to improve the local training program and to eventually increase the satisfaction level of Saudi Board plastic surgery residents.

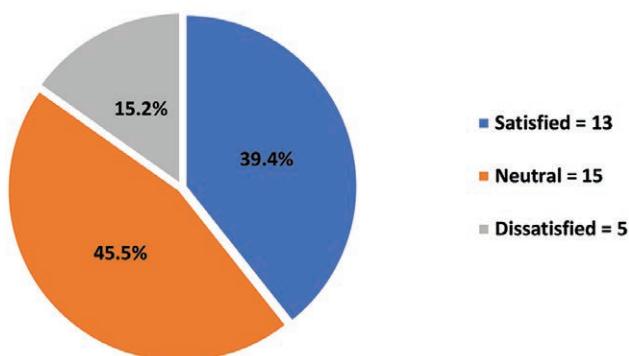


Fig. 2. Level of satisfaction regarding Saudi Board plastic surgery residency program.

CONCLUSIONS

The results of our study showed a mild level of dissatisfaction with the local training in plastic surgery. The satisfaction rate of the trainees is extremely important as it correlates with their productivity and efficiency in training. Practical solutions and interventions to improve the quality of the training program are needed. Considering the areas that are in most need of improvement could guide us toward the road of higher training quality, and consequently, higher trainee satisfaction.

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This research has received institutional board review from King Saud University. The authors declare that the study conforms to the Declaration of Helsinki. The authors have obtained approval from the Saudi Commission for Health Specialties.

REFERENCES

1. Saudi Board Plastic Surgery Curriculum. 2016. Available at <https://www.scfhs.org.sa/MESPS/TrainingProgs/TrainingProgsStatement/Documents/Plastic%20Surgery%20new.pdf>. Accessed September 24, 2021.
2. Alnamlah A, Aljaser A, Ibrahim A, et al. Plastic surgery. In: *Medical Specialty Selection Guide for Medical Graduates*. Riyadh, Saudi Arabia: Saudi Commission for Health Specialties; 2015:99–101.
3. Copeland AE, Mackinnon V, Axelrod DE, et al. Job satisfaction among plastic surgery residents in Canada: a national survey. *Plast Surg*. April 2021.
4. Aldossary MY, Alnaimi M, Almabyouq F, et al. Resident satisfaction regarding surgical training programme in eastern Saudi Arabia: a cross-sectional study. *Int J Surg Open*. 2019;17:15–19.
5. Altokhais T, Al Rajhi M, Bawazir O, et al. Resident satisfaction with the pediatric surgery training program. *BMC Med Educ*. 2020;20:375.
6. Al Shanafey S, Alzahrani A, AlBallaa A, et al. Surgical resident satisfaction with the current surgical training program in the Riyadh area. *Ann Saudi Med*. 2009;29:388–392.
7. Lam CZ, Nguyen HN, Ferguson EC. Radiology resident' satisfaction with their training and education in the United States: Effect of program directors, teaching faculty, and other factors on program success. *AJR Am J Roentgenol*. 2016;206:907–916.
8. Alosaimi FD, Kazim SN, Almuffleh AS, et al. Prevalence of stress and its determinants among residents in Saudi Arabia. *Saudi Med J*. 2015;36:605–612.
9. Kaufman T, Ad-El D. Satisfaction from plastic surgery residency: a national survey. *Ann Plast Surg*. 2020;85:344–351.
10. Myers PL, Amalfi AN, Ramanadham SR. Mentorship in plastic surgery: a critical appraisal of where we stand and what we can do better. *Plast Reconstr Surg*. 2021;148:667–677.
11. Barker JC, Rendon J, Janis JE. Medical student mentorship in plastic surgery: the mentee's perspective. *Plast Reconstr Surg*. 2016;137:1934–1942.
12. Janis JE, Barker JC. Medical student mentorship in plastic surgery: the mentor's perspective. *Plast Reconstr Surg*. 2016;138:925e–935e.
13. Odom EB, Janis JE, Gosain A, et al. Education for the future: What the residents want. *Plast Reconstr Surg*. 2017;140:646e–647e.
14. Akiki RK, Borrelli MR. Mentorship amid the madness: the value of national mentorship programs in plastic surgery amid the covid-19 pandemic. *Plast Reconstr Surg*. 2021;148:350e–351e.